

TEAM Module Two

Planning for Active Learning

Indicator: Selecting appropriate assessment strategies to monitor ongoing student progress. (Indicator 3)

Goal: I will plan and develop assessment strategies to assess prior knowledge and monitor ongoing student progress as the unit develops. As a result, my students will be able to track and follow their own progress and growth. (Indicator 3)

Initial Summary: I have five classes of mostly juniors with a variety of prior knowledge. However, they lack engagement with the curriculum and their assessment performance is inconsistent. I began to notice that my assessments were consistently *of learning*, rather than *for learning*. I also noticed that my students do not have enough time to reflect upon the content they are learning and the reason why they are learning it. Through extensive resources and collaboration with peers, I am creating a plan to implement more common formative assessments and reflective journals within the chemistry curriculum. I anticipate this will increase student engagement, higher-order thinking, and increased assessment performance. I was really excited about beginning this module with my mentor to address the issues so that I could be more successful in my teaching.

Reflection Paper:

At the high school, the chemistry curriculum is based on guided inquiry and student choice. Because of this, the importance of students' thoughts and reflections on their observations are emphasized and encouraged. Currently, I acknowledge that when I plan units and individual lesson plans, I struggle with setting aside time for students to collect their thoughts and reflect on what they are learning. Because of this, I am witnessing students' lack of engagement and inconsistencies in their academic performance. Through research and peer collaboration with my mentor and teachers in the chemistry department, I sought out methods of planning that would have the largest impact on engagement and performance. I anticipate that by implementing reflective journals as well as promoting a culture of reflection and a regimen of formative assessments for learning, my students' engagement and academic performance will increase. I believe this reflects the indicator that I chose (Indicator 3).

Currently, I begin class with a "warm-up" question on the board which serves as an introduction to the objectives for the day as well as warming up their minds to learn chemistry concepts. At the end of my lessons, students answer a "check-in" question that tests their ability to achieve the learning objectives for the day. After multiple conversations with my mentor, I learned the utilization of formative assessment strategies can be very effective in gauging students' accomplishment of learning objectives, which aids me in planning future lessons. However, my current practice needs improvement. I routinely find myself overlooking the check-in questions and currently do not consider them enough to impact future lesson plans. The website *edutopia.com* explains the importance of frequently using common formative assessments: "if we are about getting to the end, we may lose

our audience, the students. If you are not routinely checking for understanding then you are not in touch with your students' learning. Perhaps they are already far, far behind." *Edutopia.com* suggests using strategies such as "the Three-Minute Paper," "One-Sentence Summary," "Misconception Check," and "Student Checklist." I learned that there are much more strategies for implementing formative assessments than I've previously thought. Realizing that a culture of formative assessment strategies in my classroom is not currently utilized to its fullest potential, I began to seek resources and answers as to how I can plan lessons and units that focus on assessments for learning and student reflection.

I referred back to the textbooks I used during my first semester in my master's program. I found an excellent source titled *Teaching Strategies: A Guide to Effective Instruction*. In it, the authors state, "... when teachers begin to think of assessment *for learning* rather than *of learning*, the power of assessment as an instructional tool is released into the classroom" (p. 185). Assessment *for learning* began to change my ideas on not only how I was administering "check-in" questions and similar formative assessments, but also how I was collecting data on students' achievement of learning objectives. I learned that students need to also reflect on their answers to "check-in" questions and be able to self-reflect on if they believe they achieved the learning objective. Currently, my formative assessments are increasingly becoming checkpoints of understanding. Only I am benefiting from assigning formative assessments. I learned that planning to use frequent formative assessments "for learning" throughout the course of a unit can impact the way students learn and connect to the course content.

I also noticed throughout my first year as a teacher that my peers were using reflective journals in the classroom. My peers have been utilizing journals in the classroom for several years in different ways. I looked through multiple examples of the student work in these journals from both peers' students and realized I was missing out on a huge opportunity to increase student engagement and academic achievement. One of my peers use "foldables" as a way to quickly assess students' level of understanding and for students' organizational and note-taking skills. By collaborating with my peers, I hope to implement new lesson around foldables as well as other methods that they use for implementing reflective journals in their classrooms.

I plan on modifying the reflection strategies I learned to fit my teaching style. In order to develop a better understanding of reflective practice in the classroom, I researched the topic online. I found a research paper entitled *Developing Future Leaders: The Role of Reflection in the Classroom* (Roberts 2008). In it, Cynthia Roberts, an Associate Professor of Organizational Leadership and Supervision at Purdue North Central University, states:

I have found that students struggle at first with the process because much of their previous coursework may have involved the traditional "absorb information and regurgitate for the test" experience still prevalent in higher education. The practice of actually working with the material and taking ownership of the learning process may prove to be challenging. Students may not have any idea how to process, and without some direction and guided questioning, reflective activities may result in written logs or verbal narratives of events with little critical thinking applied.

Using this as a foundation in which to build a well-planned unit and curriculum, I hope to employ these various methods on how to implement reflection within my classroom effectively. From this resource, I also learned reflection strategy pitfalls to avoid when implementing.

Using Understanding by Design (UbD) planning, I will create formative assessments to use after setting my learning objectives and key knowledge and skills for students. One of these formative assessment will be given before the unit starts for two purposes: (1) to give students a general sense of what the unit is about and have a chance to reflect on the skills they are going to need to develop new learning and (2) to provide myself with individual student data on strengths and improvement areas that will impact my teaching methods during the unit. After the unit is complete, students will take the same assessment. The results of each assessment will be compared and I anticipate that students will reflect on their performance and suggest ways they can improve their achievement of the learning objectives.

I also plan on using reflective journals that will be structured, albeit loosely, in order for students, especially those being introduced to the practice of self-reflection, to benefit the most from this classroom strategy. Because of this, I will structure reflective practices during lessons in three ways:

Identify an experience

What happened?

What struck me?

Analyze the relevance of course content to understanding or question one's assumptions

What does this mean?

Why do I think this happened?

How does this relate to the material I am studying?

How does this connect to my understanding of this issue?

Apply learning to personal or professional lives

What have I learned from this?

Now what will I do differently?

What do I need to explore further?

How will I think about this topic differently?

It is my goal to implement reflective questions that pertain to these three categories into every lesson. I envision students using their reflective journals as a lesson progresses, which will give them the opportunity to reflect in real-time.

Integrating reflective journals into an inquiry-based curriculum is going to take much time and effort to streamline. The importance of closure and time for reflection before, during, and after lessons will need to be integrated into each lesson plan and sufficient time will have to be set aside. Therefore, as I continue to develop units and specific lesson plans, I will continue to seek professional help from my peers and mentor to ensure that I am able to plan lessons with enough time for reflection to be effective.

I do have to ask myself, “How will I evaluate reflective journals?” Using my resources, I will create a rubric based on those of my peers and ones I’ve seen in my research, specifically *Roberts 2008*. This rubric will be used to evaluate reflective journals throughout the duration of the curriculum. It will include the following categories:

1. Understanding - *demonstration of knowledge of material.*
2. Application - *connection between subject and personal/work life*
3. Personal insight & learning - *enhancement of self-awareness, intent to change behavior/thinking.*
4. Technical composition & professionalism

I am currently developing a rubric with these four categories in mind. It is understood that no rubric can be effective without frequent revision and student input. Therefore, working with my peers and my future students, I will integrate their ideas for reflective journal rubrics with mine to improve its effectiveness and clarity.

With these plans in mind to change the culture of my classroom by integrating formative assessment and reflective strategies, I anticipate that students will feel more responsible for their own growth and progress throughout the entirety of the course. If students are consistently exposed to self-reflection during the progression of lessons and course units, I envision them gaining a life skill that goes far beyond the chemistry classroom. As a result, I anticipate that assessment performance will increase along with student engagement as the curriculum is implemented. Using their journals and a rubric as a guide, I anticipate students will begin to build a foundation on not only how to self-reflect, but also why it is important in life after high school. I anticipate that students will develop higher-order thinking by routinely questioning the activities and lessons that they are participating in and will be able to make real-world connections through the use of reflection and inquiry. In the end, I am not just a teacher that teaches chemistry; I am a teacher first and foremost. By anticipating and envisioning my students gaining this higher-order thinking that they can carry with them for the rest of their lives, I, with the help of my peers and eventually my students, anticipate being able to plan lessons that connect to reality, that increase engagement, and that focus on the student first. I anticipate students will feel the purpose of being in my classroom... a purpose that may just spark a passion for science.

I am excited to take these new plans, strategies, and techniques that I’ve learned and implement them with my students. Thanks to my mentor and my peers, I anticipate having students that are more engaged in the curriculum and thinking on a higher order. I look forward to being more prepared for my second year of teaching to deliver impactful lessons that truly connect to students on a more fundamental level. I anticipate this summer to be full of challenging and rewarding work as I begin laying the foundation for a much more active and reflective classroom; a classroom that will aid me in becoming a better teacher and more importantly, a classroom that will hopefully foster even better students.